



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/489,908	01/24/2000	Rudolf M. Bolle	00280552AA	6447

30743 7590 04/05/2004

WHITHAM, CURTIS & CHRISTOFFERSON, P.C.
11491 SUNSET HILLS ROAD
SUITE 340
RESTON, VA 20190

EXAMINER

BALI, VIKKRAM

ART UNIT	PAPER NUMBER
----------	--------------

2623

DATE MAILED: 04/05/2004

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/489,908

Applicant(s)

BOLLE ET AL.

Examiner

Vikkram Bali

Art Unit

2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's arguments, see pages 9-10, filed 1/29/2004, with respect to the rejection(s) of claim(s) 1-27 under rejection 35 USC 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of newly found art.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-6 and 11-13 are rejected under 35 U.S.C. 102(a) as being anticipated by Wong et al. (US 5717777).

With respect to claim 1 Wong discloses the fingerprint authentication system and method that acquire two fingerprint images of a finger (see col. 1 last 4 lines to col. 2 first two lines wherein the first fingerprint is taken for enrolment and the second fingerprint is taken for authentication), computing image correlations, extracting from each said fingerprint image at least one contact parameter, and to authenticate the user to control the electronic device, (see col. 2, lines 1-15, wherein the fingerprint is taken

Art Unit: 2623

and the set of points are extracted in order to allow or to disallow the access "control the electronic device") as claimed.

With respect to claims 2-4, he further discloses contact parameter is rotation, translation, (see col. 2, lines 10-15 and the rotation includes pitch and roll) as claimed.

With respect to claim 5 and 6, he further discloses computing image correlations is performed for a single portion, between a multiplicity of small regions, (see col. 4, lines 30-35, the metrics for the references and the candidate are compared) as claimed.

With respect to claims 11-13, the at least one fingerprint is reference image captured previously and labeled with known rotation information, when the user is prompted to give the fingerprint, (see col. 2, lines 1-10, the reference is the enrolment and is stored in the memory, and because the user is opted to verify his/her fingerprint that inherently means that the user is prompted to give the fingerprint in order to gain access) as claimed.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2623

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 7-9 rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. (US 5717777) in view of Matsubashi (JP 04158434).

With respect to claim 7-9, Wong discloses the invention substantially as claimed in as described above in claim 1. However, he fails to disclose the determining the rate of change of some control parameter where the control parameter is for the computer, measuring a pitch and roll rotation to control the cursor in the computer, and step of resetting the reference point every time the finger reestablishes contact with the scanner, as claimed. Matsubashi in pointing device for display device teaches, determining the rate of change of some control parameter where the control parameter is for the computer, measuring a pitch and roll rotation to control the cursor in the computer, and step of resetting the reference point every time the finger reestablishes contact with the scanner, (see page 5 last two lines through page 6 first six lines and page 7 paragraph 2) as claimed. Therefore, it would have been obvious to one ordinary

Art Unit: 2623

skilled in the art at the time of invention to combine the two references as they are analogous because they are solving similar problem of security. The feature of pointing device can be implemented in to Wong's system because Wong is use in the computer access and this modification secures the computer usage.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. (US 5717777) in view of Toyoda (US 5999637).

With respect to claim 7-9, Wong discloses the invention substantially as claimed in as described above in claim 1. However, he fails to disclose step of comparing successive and possibly consecutive images taken from a single period of contact of finger, as claimed. Toyoda in individual identification teaches step of comparing successive and possibly consecutive images taken from a single period of contact of finger, (see col. 16, lines 1-22, the multiple fingerprints are taken of each finger and compared) as claimed. Therefore, it would have been obvious to one ordinary skilled in the art at the time of invention to combine the two references, as they are analogous because they are solving similar problem of security. The feature of multiple fingerprints are taken of each finger and compared can be implemented in to Wong's system because Wong's system does include a comparator. Furthermore, this modification will produce less false positive as the fingerprint are compared to itself in order to give better security.

Claims 14-27 are rejected for the same reasons as set forth in the rejection of claims 1-13, because claims 14-27 are claiming subject matter combinations of claims 1-13.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vikkram Bali whose telephone number is 703.305.4510. The examiner can normally be reached on 7:30 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amelia Au can be reached on 703.308.6604. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Vikkram Bali
Examiner
Art Unit 2623



Vb
March 25, 2004